

Annular Hybrid Rocket Motor, Phase I

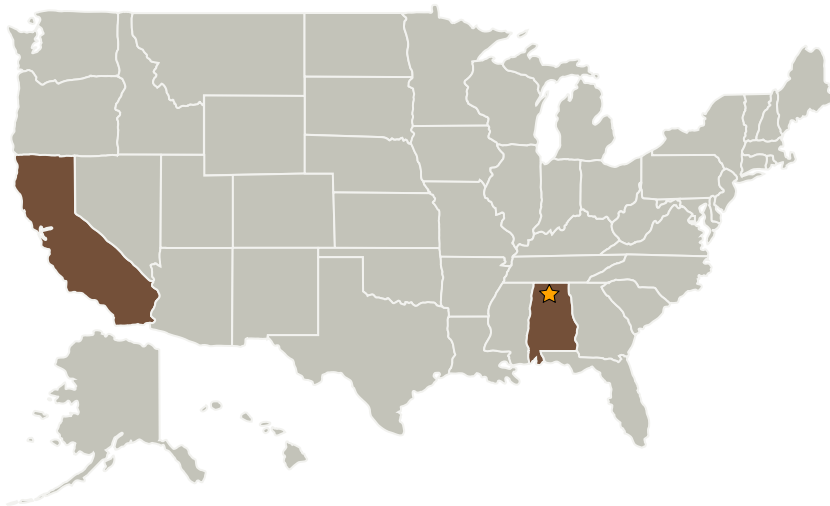
Completed Technology Project (2008 - 2008)



Project Introduction

Engineers at SpaceDev have conducted a preliminary design and analysis of a proprietary annular design concept for a hybrid motor. A U.S. Patent application has been submitted and is pending approval. The annular hybrid motor is an improvement to hybrid rocket motor technology that can be used for a wide range of applications. The technology will lead to improvements in hybrid payload mass fraction, increased performance during throttling, and reduced costs associated with casting hybrid fuel grains. The technology is highly scalable and can be used for applications ranging from small thrusters on satellites, to launch vehicle booster applications.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Marshall Space Flight Center (MSFC)	Lead Organization	NASA Center	Huntsville, Alabama
SpaceDev, Inc.	Supporting Organization	Industry	Louisville, Colorado

Primary U.S. Work Locations

Alabama	California
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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Marshall Space Flight Center (MSFC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Jeffery Hickerson

Technology Areas

Primary:

- TX01 Propulsion Systems
 - └ TX01.1 Chemical Space Propulsion
 - └ TX01.1.5 Hybrids